

## DETAILED ACTION

### *Drawings*

The drawings were received on 3/26/2010. These drawings are acceptable.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 4, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fitton (U.S. PG-PUB NO. 2004/0028121) in view of Karjalainen (U.S. PATENT NO. 7,313,114).

-Regarding claim 4, Fitton discloses a data receiver for receiving user data and reference data coming from a transmitter via at least a channel (**as disclosed in fig. 9 and further disclosed in paragraph 124**), the data receiver

comprising means for despreading unscrambled data (**despreaders 930, fig. 9 and further disclosed in paragraph 129**); means for analyzing a characteristic of the channel (**code tracking 920 and channel estimator 922 as disclosed in fig. 9 and paragraph 126-127**); a plurality of rake fingers of the data receiver (**rake fingers 906a, b, c as disclosed in fig. 9 and further disclosed in paragraph 126**), each rake finger comprising means for respectively evaluating the contribution of interferences of data caused by the channel (**code tracking 920 and channel estimator 922 as disclosed in fig. 9 and paragraph 126-127**) said means for respectively evaluating the contribution of interferences including a plurality of correlators, wherein each correlator receives scrambling codes of other links that contribute to the interference (**correlators 622, 624 as disclosed in fig. 6 and further disclosed in paragraph 101**); and subtracter means for cancelling the contribution of interference in the user data for the rake finger, using the respectively evaluated interferences in each path of the rake finger (**interference cancellation units 910 as disclosed in fig. 9 and further disclosed in paragraph 125**; although Fitton does not specifically disclose the interference cancellation units 910 are included in the rake fingers, It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the interference cancellation units to be integrated in the rake fingers, since it has been held that rearranging parts of an invention involved only routine skill in the art. *In re Japikse*, 86 USPQ 70 (CCPA 1950)), said subtracter means being placed before said unscrambling

means **(interference cancellation units 910 provides outputs 912 to despreaders 930 as shown in fig. 9 and further disclosed in paragraph 125).**

However, Fitton fails to specifically disclose means for unscrambling data.

Karjalainen discloses means for unscrambling data **(i.e. deinterleaver 426, fig. 4 and further disclosed in col. 10 lines 1-20).**

Therefore, it would have been obvious to one of ordinary skills in the art at the time of invention to modify the receiver of Fitton to include a deinterleaver as disclosed by Karjalainen. One is motivated as such in order to arrange data in a way to increase performance.

-Regarding claim 6, the combination further discloses subtracting includes subtracting an interference evaluation within each of the plurality of rake fingers **(Fitton, shown in fig. 9).**

-Regarding claim 7, the combination further discloses wherein respectively determining an evaluation of the interferences includes separately determining an interference evaluation for each of a plurality of paths within each of the plurality of rake fingers, further comprising the steps of adding the separately-determined interference evaluations **(Fitton, the respective outputs from the cross-correlators 622 and 624 are then multiplied by channel estimates 606c and 606b in multipliers 626 and 628 respectively and the results combined to form the final term of Equation 5 on line 630 as disclosed in fig. 6 and paragraph 101),** and wherein subtracting includes subtracting the added interference evaluations from the received user data **(Fitton, interference**

**cancellation unit 910 as disclosed in fig. 9 and further disclosed in paragraph 125-142).**

***Allowable Subject Matter***

Claims 1-3, 8 and 10-14 are allowed.

Claim 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed 3/26/2010 have been fully considered but they are not persuasive.

In pages 9-13 of the remarks, regarding claims 4-7, applicant argues that the present invention uses a subtractor placed before the unscrambling process.

However, the examiner respectfully disagrees. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a subtractor placed before the unscrambling process) are not recited in the rejected claim 4. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PING Y. HSIEH whose telephone number is (571)270-3011. The examiner can normally be reached on Monday~Thursday 8am ~ 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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